Key Features and Benefits

- 32 bit / 64 bit at 33 / 66 MHz PCI/PCI-X Bus
- 2.5Gbps PCI Express per lane
- Standard cPCI board
- Compact design
- Low power consumption and dissipation
- 3U / 6U form factor support for fascia

Applications

- cPCI - Remote chassis control
- cPCI - Host controller
- Distributed architecture systems

Description

The DP-cPCI-7497 is a highly flexible PCI Extender card, which can be used to extend PCI / PCI-X bus from one system to another system over an optical fiber medium up to 500m distance. A PCI-X to PCI-e Bridge is used to convert the PCI / PCI-X protocol to x4 PCI Express protocol operating at 2.5Gbps. The PCI-X to PCI-e Bridge is connected to four optical transceivers (x4 PCI-e link) which can transmit optical signals up to 2.5Gbps speed.

A x4 copper medium connection option in lieu of optical transceivers is also available.

The PCI Extender card is compatible with 32 / 64 bit and 33 / 66 MHz speed PCI / PCI-X signals. The DP-cPCI-7497 is implemented in a 3U cPCI form factor.

The DP-cPCI-7497 will act as an I / O card in the host chassis and extend the signals to the remote chassis where another DP-cPCI-7497 will be mounted in Slot 0 to receive the signals from the host chassis and transfer it to the remote chassis.

DP-cPCI-7497 is also available in PCI / PMC form factors*. System designers can choose between PCI / cPCI / PMC form factors to interconnect between system types such as PCI, cPCI & VME etc.

PCI-X to PCI Express Bridge

PCI / PCI-X to PCI Express Bridge is a high performance bridge that enables designers to migrate legacy PCI and PCI-X bus interfaces to the advanced PCI Express. PCI / PCI-X to PCI Express Bridge is logically a two port device, one port is PCI / PCI-X bus operating at 33 / 66MHz speed and another port is PCI-Express (x4) operating at 2.5Gbps.

Optical Transceiver

The board includes an Opto-transceiver to convert the PCI EXPRESS signal into optical signal. This optical signal is transmitted in a fiber optic link for long distance (up to 500m) with less attenuation. It is designed for Multi-mode fiber and operate at a nominal wavelength of 850nm.

Glue Logic

DP-cPCI-7497 can be configured as Master or Slave, through glue Logic, along with some Resistor Mounting options. If the mode of operation is Master, the DP-cPCI-7497 will be mounted in the slot-0 and it will act as a processor in the remote chassis, where it will receive PCI-Express signal as input and convert it to PCI signals. If the mode of operation is Slave, then the DP-cPCI-7497 will be mounted in an I/O slot where it will receive PCI / PCI-x signals as input and convert it to PCI-e signals.

* Contact factory for ordering information
**SPECIFICATIONS**

**PCI-X TO PCI EXPRESS BRIDGE**
- Four full duplex PCI express lanes operating at 2.5Gbps
- Transparent mode support
- Reverse and forward bridging
- Supports arbitration in master mode (Six REQ and GNT) can be enabled and disabled
- End-to-end CRC
- Automatic lane reversal

**I/O INTERFACE**
One, two or four optical transceivers on the front panel
(Optional) One x4 PCI-Express copper interface

**ORDERING INFORMATION**
- DP cPCI 7497
- 3 0 0
- 0 – Slave Mode
- 3 – Master Mode
- 0 – 3U Fascia
- 3 – 6U Fascia
- 0 – x4 Copper
- 3 – x1 Optical
- 6 – x2 Optical
- 9 – x4 Optical
- 3 – Commercial Version
- 6 – Rugged Version

**ENVIRONMENT**
- Commercial and Rugged versions

**MECHANICAL**
- Board 160mm(W) x 100mm(H) x 1.61mm(Thickness)

**CONNECTOR**
- Board Interface: J1 Connector
- Field Interface: Optical transceivers/copper medium Connectors

**BLOCK DIAGRAM OF DP-cPCI-7497**

- PCI Extender Card for cPCI Systems
- PCI EXPRESS COPPER INTERFACE
- OPTO TRANSCEIVER
- OPTO TRANSCEIVER
- OPTO TRANSCEIVER
- OPTO TRANSCEIVER
- RESISTOR MOUNTING OPTION FOR SLOT-0 (Master) and I/O Slot (Slave)